Midterm I. MATH 53 Multivariable Calculus
Instructor: Zvezdelina Stankova

DO NOT OPEN THE MIDTERM UNTIL TOLD TO DO SO!

• Please, do all Problems 1 through 5, as best as you can. The Bonus Problem 6 is optional. The midterm is 1 hour and 10 minutes long. You may not leave early.

• Use the provided sheets to write your solutions. You may also use the back of each page for scratch work or solutions. If you need more paper, use the additional paper provided to each student. Submit all work which you wish to be graded and staple it to this packet! Loose sheets of paper will NOT be graded! Ask the instructor for a stapler at the end of the exam.

• The exam is closed notes and books, which means: no classnotes, no session notes, no review notes, no textbooks, and no other materials can be used during the midterm. You can use only your cheat sheet, this exam packet and additional blank paper provided by the instructor. You cannot use your paper to write on, even if it is only scratch work. The cheat sheet is one side of a regular 8 ½ × 11 sheet, handwritten only by you. A cheat sheet which doesn’t conform to these specifications will be disqualified, and the student’s midterm may be annulled.

• NO CALCULATORS ARE ALLOWED DURING THE MIDTERM!

• You cannot ask for help in any form from other students, you cannot look at their midterms and copy, you cannot cheat in any way – the midterm is an individual assignment and must be done only by you. If you have a question regarding the statement of a problem, raise your hand when the instructor or a TA is around.

• Think of this midterm as an important homework. Check your reasoning and calculations very carefully. Justify all your answers, include all intermediate steps and calculations. If you are not sure about how to write something in mathematical notation, explain clearly in words what you mean and what you are doing. Unjustified answers, even if correct, will receive no credit! On the contrary, good justifications and good work on a problem may receive a lot of credit even if the final answer is incorrect.

• Before turning in your midterm, please, sign the statement below. Midterms which are not signed will not be graded.

I, the student whose name and signature appear on this midterm, have completed the midterm without any outside help from people or other sources. I have used only my cheat sheet conforming to the specifications written above. I have not cheated in any way, and I have followed all instructions above. I have stapled all solutions and work wished to be graded to the present exam packet.

Student signature: _______________________________